

REMARKS

Claims 1-4, 6-9 and 11-14 are pending in this application. By this Amendment, claims 1, 3-4, 6, 8-9, 11 and 13-14 are amended and claims 5, 10 and 15 are canceled without prejudice or disclaimer. Various amendments are made to the claims for clarity and are unrelated to issues of patentability.

The Office Action asks whether the equation in claim 6 should be " $E_i(k)$ " or " $E_1(k)$." Applicant respectfully submits that the "i" in " $E_i(k)$ " corresponds to "interleaving" and that the "d" in " $E_d(k)$ " corresponds to "deinterleaving." See paragraphs [39]-[40] of the present specification, for example.

The Office Action objects to claim 6 under 35 U.S.C. §112, second paragraph. By this amendment, claim 6 is amended to recite features suggested in the Office Action. Withdrawal of the rejection is respectfully requested.

The Office Action rejects 1-15 under 35 U.S.C. §102(e) by U.S. Patent 6,304,996 to Van Stralen et al. (hereafter Van Stralen). The Office Action also rejects claims 1-15 under 35 U.S.C. §102(e) by "prior art disclosed by the Applicant" (hereafter the alleged admitted prior art or AAPA). The rejections are respectfully traversed.

Independent claim 1 recites a method that includes that the interleaving, the secondarily decoding, and the deinterleaving are implemented simultaneously. Similar features were recited in dependent claim 5. For example, in a non-limiting example of the present application shown in FIG. 3, after a first decoding operation of the first MAP decoder 101 is performed, the interleaving, the secondarily decoding, and the deinterleaving may be performed simultaneously.

The interleaving may be performed in such a manner that the extrinsic information indicated by a(k) is read out from the memory 106 that stores the primarily decoded signal and then input to the second MAP decoder 103 for secondarily decoding. The deinterleaving may be performed in such a manner that the secondarily decoded signals are simultaneously stored in a same address as the primarily decoded signals. See paragraphs [50]-[52], for example. Applicant respectfully notes that the claims are method claims.

Van Stralen and AAPA do not teach or suggest all the features of the independent claim 1. The Office Action states (with respect to previous dependent claim 5) that Van Stralen's FIG. 1 discloses the interleaving operation, the secondarily decoding, and the deinterleaving operation being implemented simultaneously. The Office Action does not cite any section of Van Stralens written disclosure. However, these three operations in Van Stralen can only be performed sequentially. There is no suggestion in Van Stralen that interleaving, secondarily decoding and deinterleaving are implemented simultaneously. Thus, Van Stralen does not suggest the claimed features as alleged in the Office Action.

The Office Action also states (with respect to previous dependent claim 5) that FIGs. 1 and 2 of the present application (AAPA) disclose the interleaving operation, the secondarily decoding and the deinterleaving operation are implemented simultaneously. However, FIG. 1 of the present application does not teach or suggest the interleaving, the secondarily decoding and the deinterleaving are implemented simultaneously. See paragraph [12] describing the MAP decoding operation, the interleaving operation and the deinterleaving operation are sequentially performed. Thus, AAPA does not suggest the claimed features as alleged in the Office Action.

Accordingly, for at least these reasons set forth above, Van Stralen and AAPA, either alone or in combination, do not teach or suggest all the features of independent claim 1. Independent claim 1 therefore defines patentable subject matter. Each of independent claims 6 and 11 defines patentable subject matter for at least similar reasons.

Each of the dependent claims depends from one of the independent claims and therefore defines patentable subject matter at least for this reason. In addition, the dependent claims recite features that further and independently distinguish over the applied references.

CONCLUSION

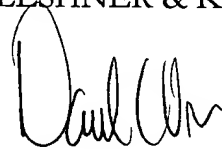
In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance of claims 1-4, 6-9 and 11-14 are earnestly solicited. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, **David C. Oren**, at the telephone number listed below.

Serial No. 09/977,251
Reply to Office Action June 29, 2005

Docket No. K-0317

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
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